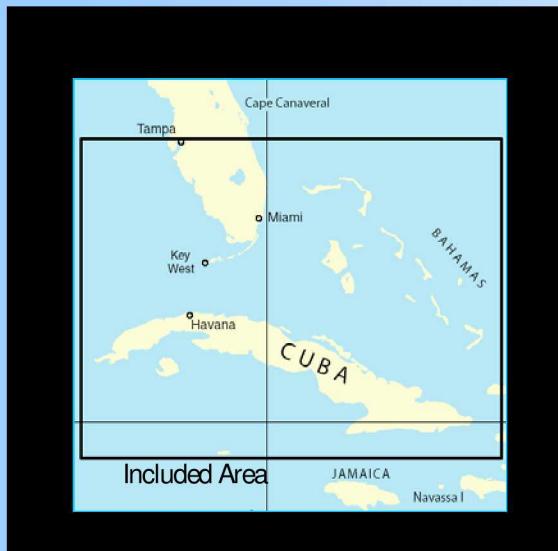


BookletChartTM

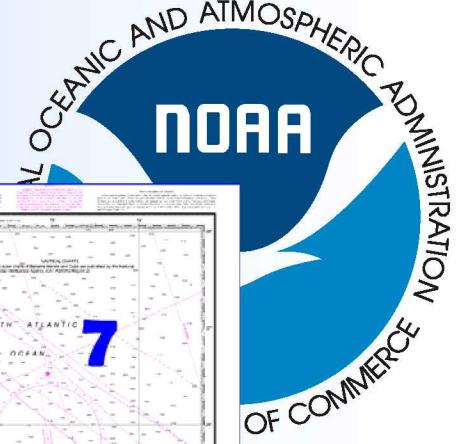
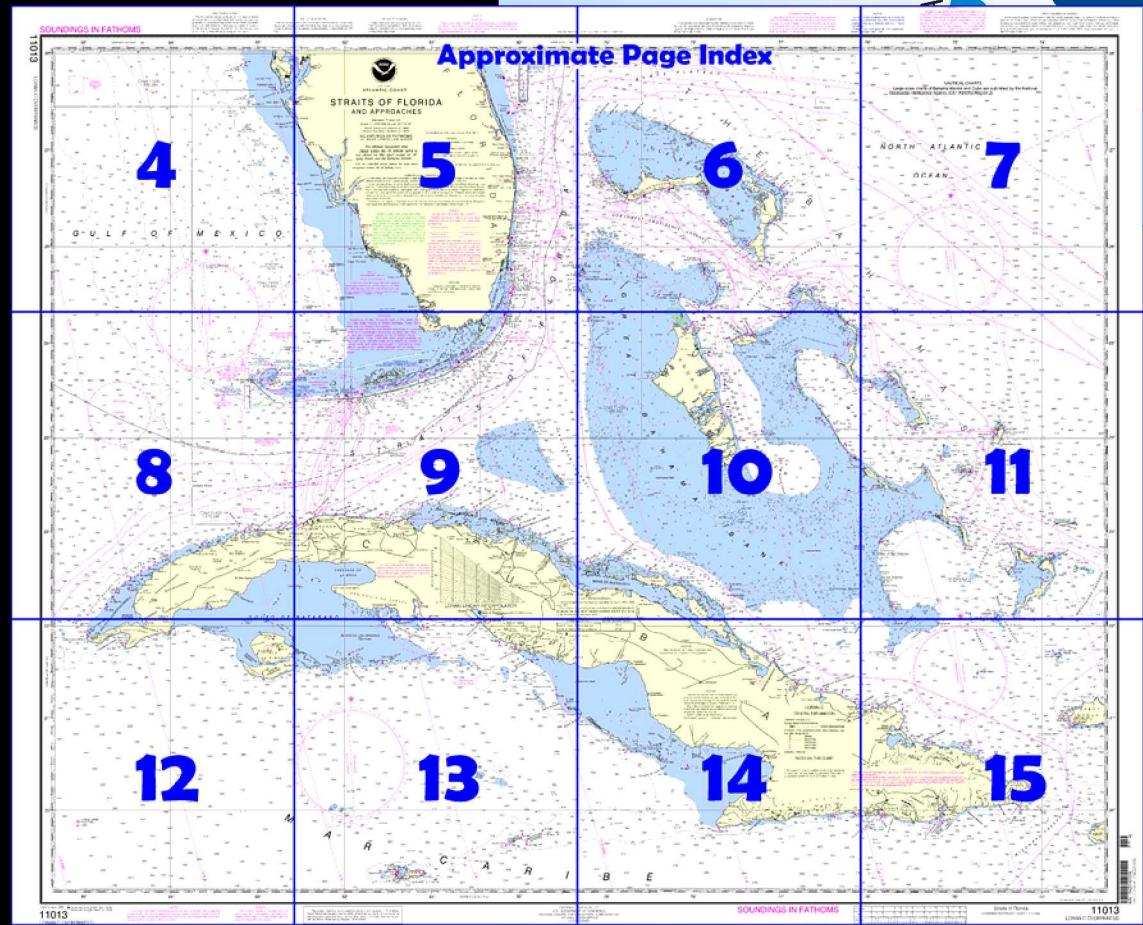
Straits of Florida and Approaches

(NOAA Chart 11013)



A reduced scale NOAA nautical chart for small boaters. When possible, use the full size NOAA chart for navigation.

- Complete, reduced scale nautical chart
- Print at home for free
- Convenient size
- Up to date with all Notices to Mariners
- United States Coast Pilot excerpts
- Compiled by NOAA, the nation's chartmaker.



Home Edition (not for sale)



What are Nautical Charts?

Nautical charts are a fundamental tool of marine navigation. They show water depths, obstructions, buoys, other aids to navigation, and much more. The information is shown in a way that promotes safe and efficient navigation. Chart carriage is mandatory on the commercial ships that carry America's commerce. They are also used on every Navy and Coast Guard ship, fishing and passenger vessels, and are widely carried by recreational boaters.

What is a BookletChart™?

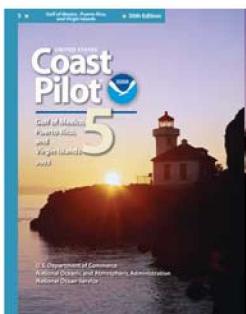
This BookletChart is made to help recreational boaters locate themselves on the water. It has been reduced in scale for convenience, but otherwise contains all the information of the full-scale nautical chart. The bar scales have also been reduced, and are accurate when used to measure distances in this BookletChart. See the Note at the bottom of page 5 for the reduction in scale applied to this chart.

Whenever possible, use the official, full scale NOAA nautical chart for navigation. Nautical chart sales agents are listed on the Internet at <http://www.NauticalCharts.NOAA.gov>.

This BookletChart does NOT fulfill chart carriage requirements for regulated commercial vessels under Titles 33 and 44 of the Code of Federal Regulations.

Notice to Mariners Correction Status

This BookletChart has been updated for chart corrections published in the U.S. Coast Guard Local Notice to Mariners, the National Geospatial Intelligence Agency Weekly Notice to Mariners, and, where applicable, the Canadian Coast Guard Notice to Mariners. Additional chart corrections have been made by NOAA in advance of their publication in a Notice to Mariners. The last Notices to Mariners applied to this chart are listed in the Note at the bottom of page 7. Coast Pilot excerpts are not being corrected.



[Coast Pilot 5, Chapter 3 excerpts]

(149) The **Gulf Stream System** is the most famous of the principal ocean currents. In general, as the swift current of the Gulf Stream issues into the sea through Straits of Florida, its waters are characterized by a deep blue color, high salinity, high temperature in the upper stratum, and absence of phosphorescence. Gulf Stream water is very clear, enabling visual penetration to unusually great depths. At its junction with coastal seawater, the edges may frequently be

recognized in moderate weather by ripples, as well as by the difference in color. In addition, the stream may carry with it some **Gulf weed** (*Sargassum*), which is olive brown, branched seaweed with berrylike air vessels.

(152) Shortly after emerging from the Straits of Florida, the Gulf Stream is joined by the **Antilles Current**, which flows NW along the open ocean

side of the West Indies. The union of the two currents gives rise to a broad and deep current possessing about the same characteristics as the Florida Current except that the velocity is somewhat reduced. The Gulf Stream from the Florida Straits flows N, then NE, paralleling the general trend of the 100-fathom contour up to Cape Hatteras.

(157) Throughout the whole stretch from the Florida Keys to past Cape Hatteras the stream flows with considerable velocity. Characteristic average surface speed is on the order of 2.5 knots, increasing to about 4.5 knots off Cape Florida where the cross sectional area of the channel is least. These values are for the axis of the stream where the current is a maximum, the speed of the stream decreasing gradually from the axis as the edges of the stream are approached. The axis of the stream is estimated to be about 3-15 miles seaward of the north wall. Both the speed and position of the axis of the stream fluctuate from day to day.

(158) Crossing the stream at Jupiter or Fowey Rocks, an average

allowance of 2.5 knots in a N direction should be made for the current.

(162) The lateral boundaries of the current within the Straits of Florida are fairly well fixed, but as the stream crosses 32°N its E boundary becomes somewhat vague. On the W side the limits can be defined approximately since the waters of the stream differ in color, temperature, salinity, and flow from the inshore coastal waters. On the E, however, the Antilles Current combines with the Gulf Stream so that its waters here merge gradually with the waters of the open Atlantic. Observations indicate that the average position of the inner edge of the Gulf Stream from the Straits of Florida to Cape Hatteras lies inside the 100-fathom curve.

(164) Along the Florida Reefs between Alligator Reef and Dry Tortugas the distance of the N edge of the Gulf Stream from the edge of the reefs gradually increases toward the W. Off Alligator Reef it is quite close inshore, while off Rebecca Shoal and Dry Tortugas it is possibly 15 to 20 miles S of the 100-fathom curve. Between the reefs and the N edge of the Gulf Stream the currents are ordinarily tidal and are subject at all times to considerable modification by local winds and barometric conditions. This neutral zone varies in both length and breadth; it may extend along the reefs a greater or lesser distance than stated, and its width varies as the N edge of the Gulf Stream approaches or recedes from the reefs.

(174) While navigating the Gulf of Mexico presents few weather hazards, the ones that occur can be treacherous. Winter storms and cold fronts can generate gales and rough seas. Sea fog, frequent from December through April, can plague the mariner in open and coastal waters. During summer and fall, there is the threat from hurricanes.

(175) During winter, the region is subjected alternately to maritime tropical and continental polar air masses. When cold fronts push through and stall over the Gulf, they may trigger the formation of winter storms. These systems often parallel the N Gulf coast or move inland producing persistent low stratus clouds and rain ahead of their centers. About one-half of the 30 to 40 cold fronts that penetrate the Gulf each year bring strong N winds and whip up rough seas; these are known as "**northers**". The cold air behind the fronts can cause sudden and sometimes large drops in temperature. These cold air masses lower the sea surface temperatures, which aids in the formation of dense advection fog. This fog is most prevalent along the N Gulf coast from January through April.

(176) By May, the semipermanent, subtropical **Atlantic High (Bermuda High)** extends westward across the Gulf of Mexico, strengthens and tends to block storms and fronts from the N. Spring is one of the most trouble-free seasons in the Gulf. Easterly moving systems are infrequent until early summer when the threat of easterly waves and tropical cyclones looms over the region.

(177) The summer wind flow around the Bermuda High is generally from the E through S, and this is reinforced along much of the coast by the afternoon sea breeze. These prevailing winds provide a source of moist tropical air that results in frequent shower activity along the coast, particularly during the afternoon and evening. Many of these showers develop into thunderstorms, which may drift offshore at night.

Table of Selected Chart Notes

Corrected through NM Feb. 16/08
Corrected through LNM Feb. 12/08

HEIGHTS

Heights in feet above Mean High Water.

CAUTION

Limitations on the use of radio signals as aids to marine navigation can be found in the U.S. Coast Guard Light Lists and National Geospatial-Intelligence Agency Publication 117.

Radio direction-finder bearings to commercial broadcasting stations are subject to error and should be used with caution.

Station positions are shown thus:
◎(Accurate location) ◊(Approximate location)

NOTE D

PROHIBITED AREAS

Pavilion Key
(Areas to be avoided)

Under the Florida Keys National Marine Sanctuary and Protection Act, Pub. L. 101-605 and IMO advisory SN/Circ. 145, these areas are to be avoided by tank vessels and vessels greater than 50 meters in length.

CAUTION

SUBMARINE PIPELINES AND CABLES

Charted submarine pipelines and submarine cables and submarine pipeline and cable areas are shown as:



Additional uncharted submarine pipelines and submarine cables may exist within the area of this chart. Not all submarine pipelines and submarine cables are required to be buried, and those that were originally buried may have become exposed. Mariners should use extreme caution when operating vessels in depths of water comparable to their draft in areas where pipelines and cables may exist, and when anchoring, dragging, or trawling.

Covered wells may be marked by lighted or unlighted buoys.

RADAR REFLECTORS

Radar reflectors have been placed on many floating aids to navigation. Individual radar reflector identification on these aids has been omitted from this chart.

PARTICULARLY SENSITIVE SEA AREA

The Particularly Sensitive Sea Area (PSSA) is indicated by a dashed green limiting line highlighted with a green screened band or by a green screened band used in conjunction with the line symbol for other limits with which the PSSA coincides. A PSSA is an environmentally sensitive area around which mariners should exercise extreme caution. See U.S. Coast Pilot volumes for information regarding this area.

CAUTION

Temporary changes or defects in aids to navigation are not indicated on this chart. See Local Notice to Mariners.

WARNING

The prudent mariner will not rely solely on any single aid to navigation, particularly on floating aids. See U.S. Coast Guard Light List and U.S. Coast Pilot for details.

AIDS TO NAVIGATION

Consult U.S. Coast Guard Light List for supplemental information concerning aids to navigation.

For Symbols and Abbreviations see Chart No. 1

NOTE C

A Traffic Separation Scheme, centered at approximately 23°25'N., 80°46'W., has been approved by the International Maritime Organization (IMO). Refer to chart 11420 for detailed graphics of the scheme.

NOTE B

The Oculina Bank (protected area: 50 CFR 622.35) the following restrictions apply: Fishing with bottom longlines, traps, pots, dredges, and bottom trawls is prohibited.

Additional restrictions apply within the experimental closed area (see chart 11460).

Mercator Projection
Scale 1:1,200,000 at Lat 25° 11' 50"

North American Datum of 1983
(World Geodetic System 1984)

SOUNDINGS IN FATHOMS
AT MEAN LOWER LOW WATER

MAGNETIC VARIATION

Magnetic variation curves are for 2008 derived from 2009 World Magnetic Model and accompanying secular change. If annual change is in same direction as variation it is additive and the variation is increasing. If annual change is opposite in direction to variation it is subtractive and the variation is decreasing.

HORIZONTAL DATUM

The horizontal reference datum of this chart is North American Datum of 1983 (NAD 83), which for charting purposes is considered equivalent to the World Geodetic System of 1984 (WGS 84). Geographic positions referred to the North American Datum of 1927 do not require conversion to NAD 83 for plotting on this chart.

LORAN-C GENERAL EXPLANATION

LORAN-C FREQUENCY.....100kHz
PULSE REPETITION INTERVAL
7980.....79,800 Microseconds
STATION TYPE DESIGNATORS: (Not individual station letter designators).
M Master
W Secondary
X Secondary
Y Secondary
Z Secondary

EXAMPLE: 7980-W

RATES ON THIS CHART

The Loran-C lines of position shown on this chart are based on assumed all sea water signal paths. They are not adjusted for overland signal transmission delay.

CAUTION

Gas and Oil Well Structures

Numerous platforms and gas and oil well structures exist in the Gulf of Mexico from Key West, Florida to Brazos Santiago, Texas. Some wells are submerged and capped. Only those structures reported submerged and covered less than 11 fathoms are charted outside of the 10 fathom curve. See Charts in the 1:400,000 scale range and 1:80,000 scale series charts for location of surface platform structures and wells submerged 11 fathoms or more, submarine pipelines and cables, aids to navigation and safety fairways through operational oil field areas.

Additional information can be obtained at nauticalcharts.noaa.gov.

GULF STREAM CURRENTS

From investigation by the Coast and Geodetic Survey in 1885, 1886, and 1887.

The directions and velocity of the current are indicated at each station by arrows: the long arrow indicates maximum and the short arrow minimum velocity; figures show knots.

LOCALITY OF CURRENT STATIONS	TIME OF MAX VELOCITY BEFORE MOONS TRANSIT
East of Fowey Rocks (5 stations)	9 ^h 00 ^m
South of Rebecca Shoal (5 stations)	9 ^h 20 ^m

POLLUTION REPORTS

Report all spills of oil and hazardous substances to the National Response Center via 1-800-424-8802 (toll free), or to the nearest U.S. Coast Guard facility if telephone communication is impossible (33 CFR 153).

NOTE F

CAUTION

Trawlers or other vessels should exercise caution while dragging the ocean floor within a 40 mile radius of Cape Canaveral, Florida, since it is known that missile debris, some of which may contain unexploded ordnance, exists in this area.

AUTHORITIES

Hydrography and topography by the National Ocean Service, Coast Survey, with additional data from the National Geospatial-Intelligence Agency, Geological Survey, Corps of Engineers, U.S. Coast Guard, and British Admiralty charts.

CAUTION

This chart has been corrected from the Notice to Mariners (NM) published weekly by the National Geospatial-Intelligence Agency and the Local Notice to Mariners (LNM) issued periodically by each U.S. Coast Guard district to the dates shown in the lower left hand corner. Chart updates corrected from Notice to Mariners published after the dates shown in the lower left hand corner are available at nauticalcharts.noaa.gov.

This nautical chart has been designed to promote safe navigation. The National Ocean Service encourages users to submit corrections, additions, or comments for improving this chart to the Chief, Marine Chart Division (NCS2), National Ocean Service, NOAA, Silver Spring, Maryland 20910-3282.

PRINT-ON-DEMAND CHARTS

NOAA and its partner, OceanGrafix, offer this chart updated weekly by NOAA for Notices to Mariners and critical corrections. Charts are printed when ordered using Print-on-Demand technology. New Editions are available 5-8 weeks before their release as traditional NOAA charts. Ask your chart agent about Print-on-Demand charts or contact NOAA at 1-800-584-4683, <http://NauticalCharts.gov>, help@NauticalCharts.gov, or OceanGrafix at 1-877-56CHART, <http://OceanGrafix.com>, or help@OceanGrafix.com.

11013

LORAN-C OVERPRINTED

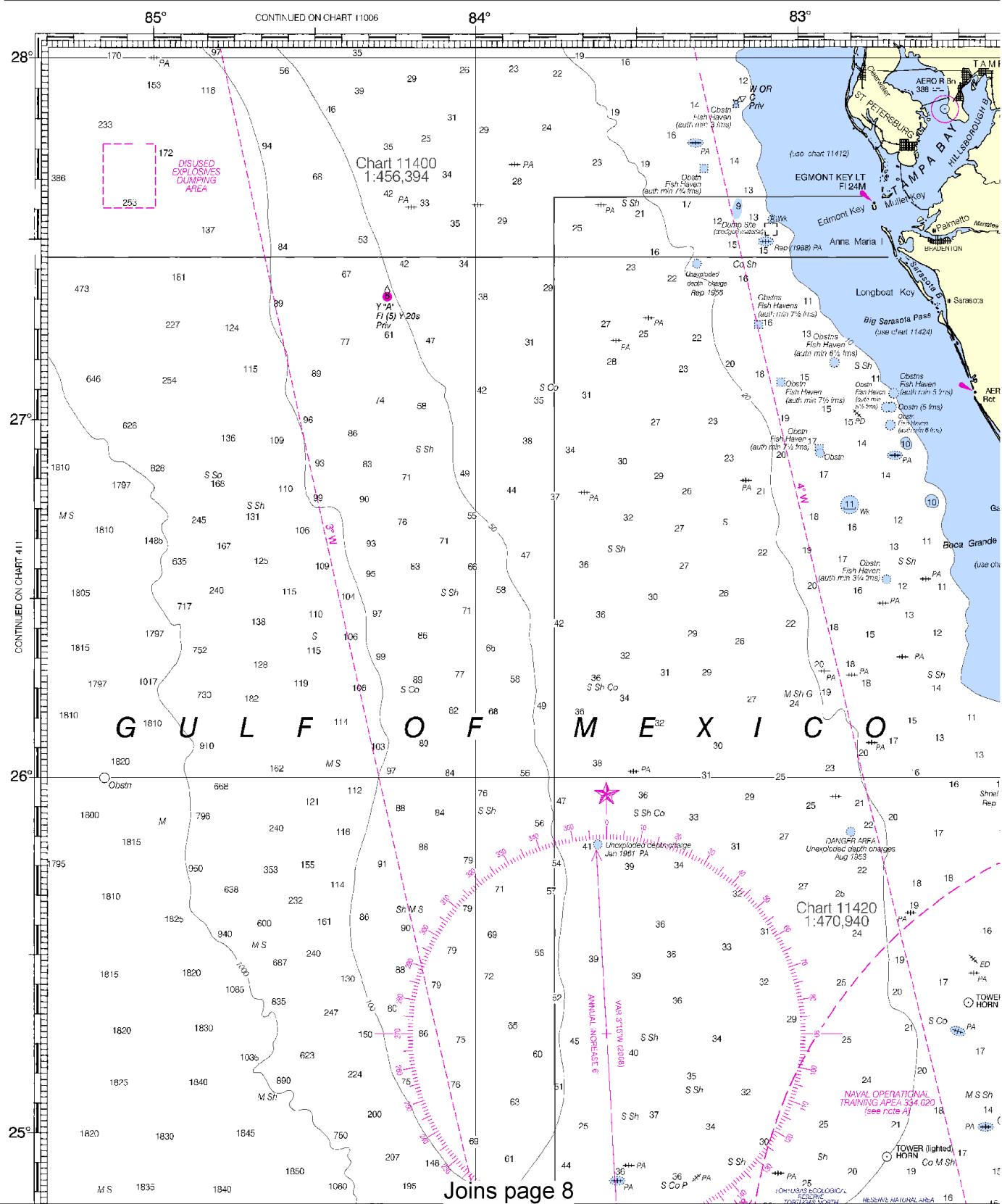
SOUNDINGS IN FATHOMS

HORIZONTAL DATUM

The horizontal reference datum of this chart is North American Datum of 1983 (NAD 83), which for charting purposes is considered equivalent to the World Geodetic System of 1984 (WGS 84). Geographic positions referred to the North American Datum of 1927 do not require conversion to NAD 83 for plotting on this chart.

POLLUTION

Report all spills of oil and hazardous materials to the Response Center via 1-800-424-8133. Report facility if telephone number is 153.



TOK REPORTS

dangerous substances to the National
1-800-2 (to I free), or to the nearest U.S.
communication is impossible (33 CFR

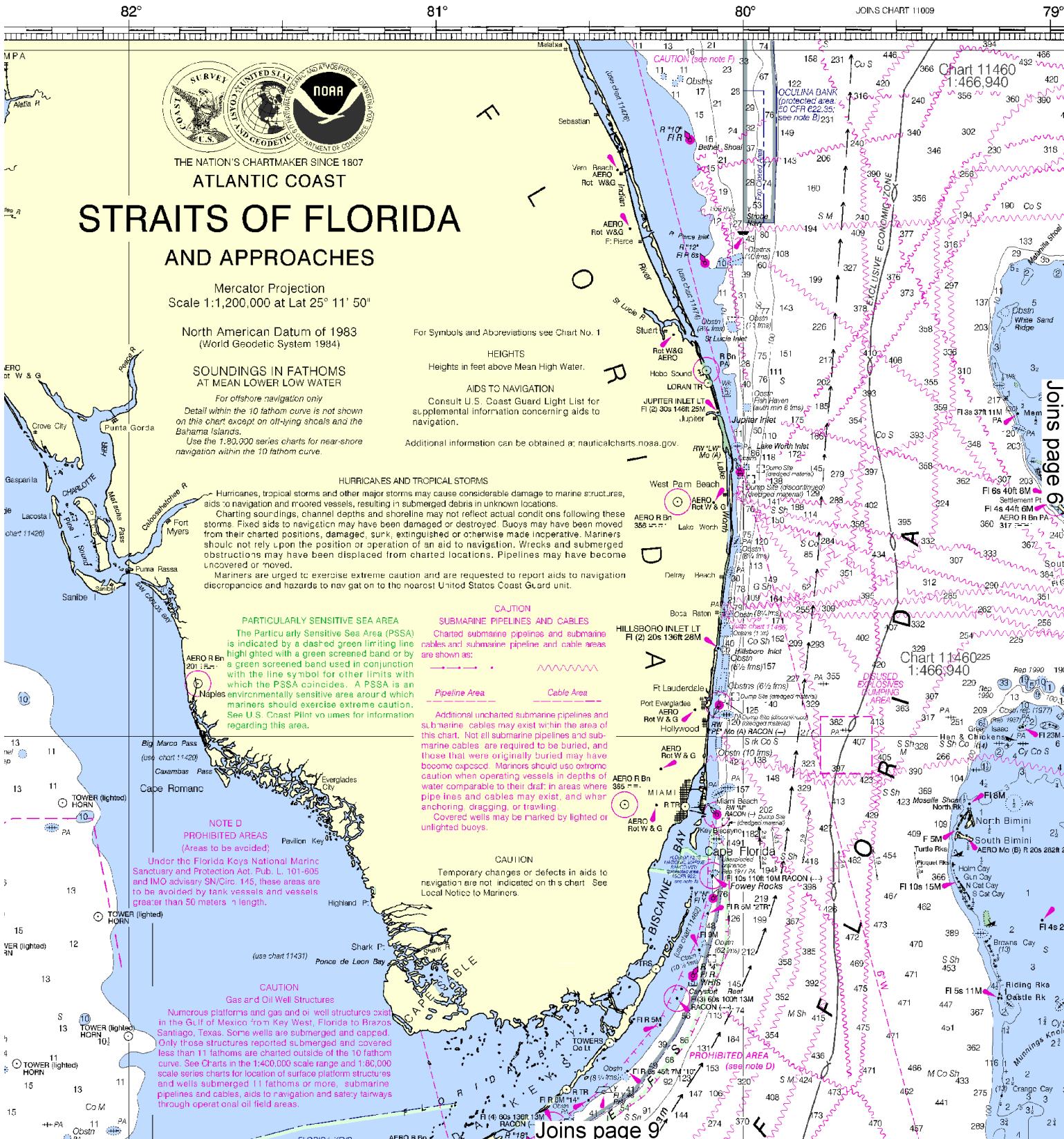
RADAR REFLECTORS

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floating aids to navigation. Individual radar
reflector identification on these aids has been
omitted from this chart.

NOTE F
CAUTION

Trawlers or other vessels should exercise caution while dragging
the ocean floor with a 40 mile radius of Cape Canaveral, Florida,
since it is known that missile debris, some of which may contain
unexploded ordnance, exists in this area.

Formerly C&GS 1002, 1st Ed., July 1900 C-1906-6



This BookletChart was reduced to 70% of the original chart scale.
The new scale is 1:1714286. Barscales have also been reduced and
are accurate when used to measure distances in this BookletChart.

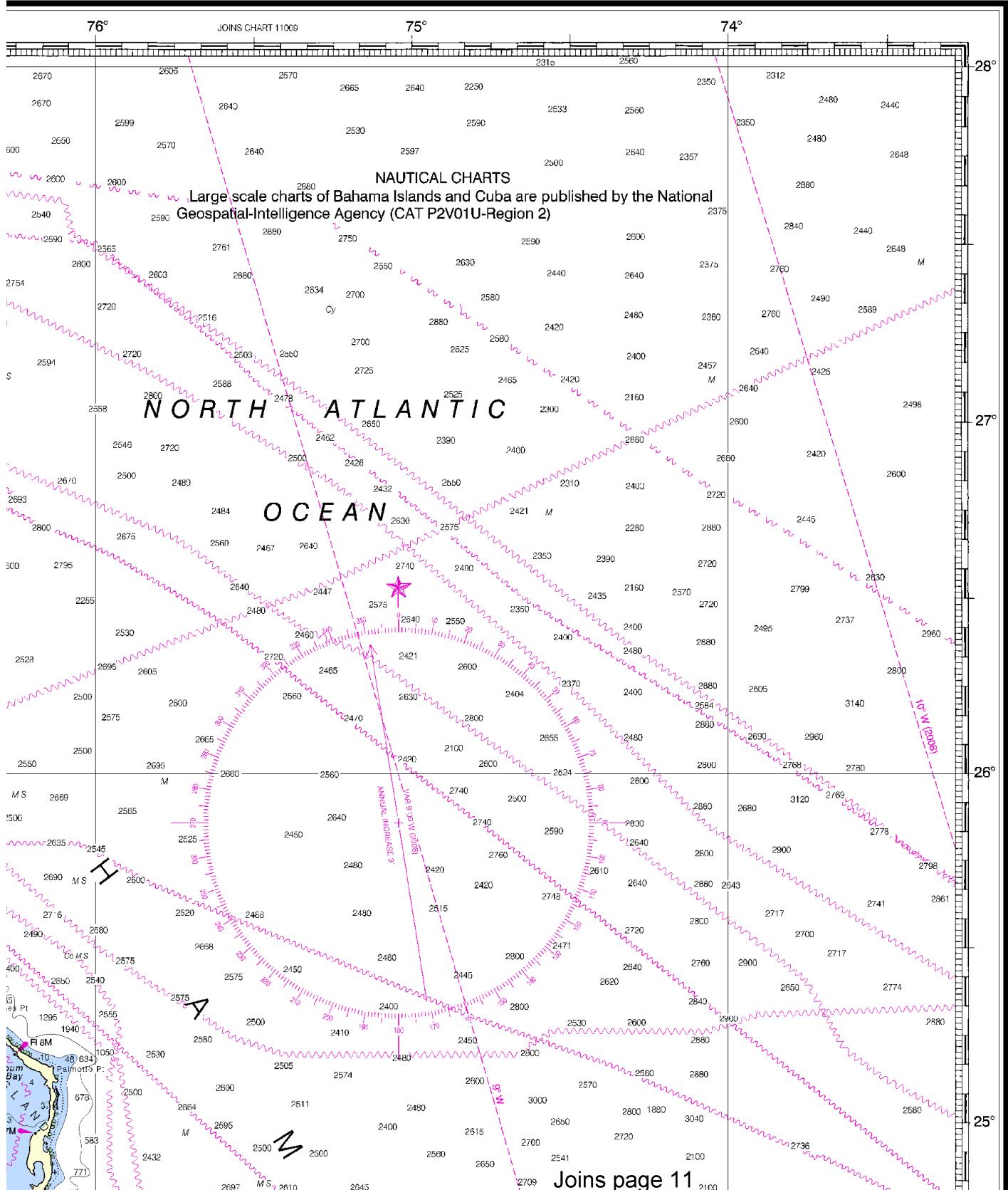
NOTE A

Navigation regulations are published in Chapter 2, U.S. Coast Pilot 4 & 5. Additions or revisions to Chapter 2 are published in the Notice to Mariners. Information concerning the regulations may be obtained at the Office of the Commander, 7th Coast Guard District in Miami, FL, and 8th Coast Guard District in New Orleans, LA, or at the Office of the District Engineer, Corps of Engineers in Mobile, AL. Refer to charted regulation section numbers.

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NOTE B
The Ocilia Bank (protected area: 50 CFR 622.35) the following restrictions apply: Fishing with bottom longlines, traps, pots, dredges, and bottom trawls is prohibited.
Additional restrictions apply within the experimental closed area (see chart 11460).



This BookletChart has been updated with: Coast Guard Local Notice To Mariners: 0710 2/16/2010,
NGA Weekly Notice to Mariners: 0910 2/27/2010,
Canadian Coast Guard Notice to Mariners: n/a .

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A blue upward-pointing triangle with the word "North" written below it.

Joins page 12

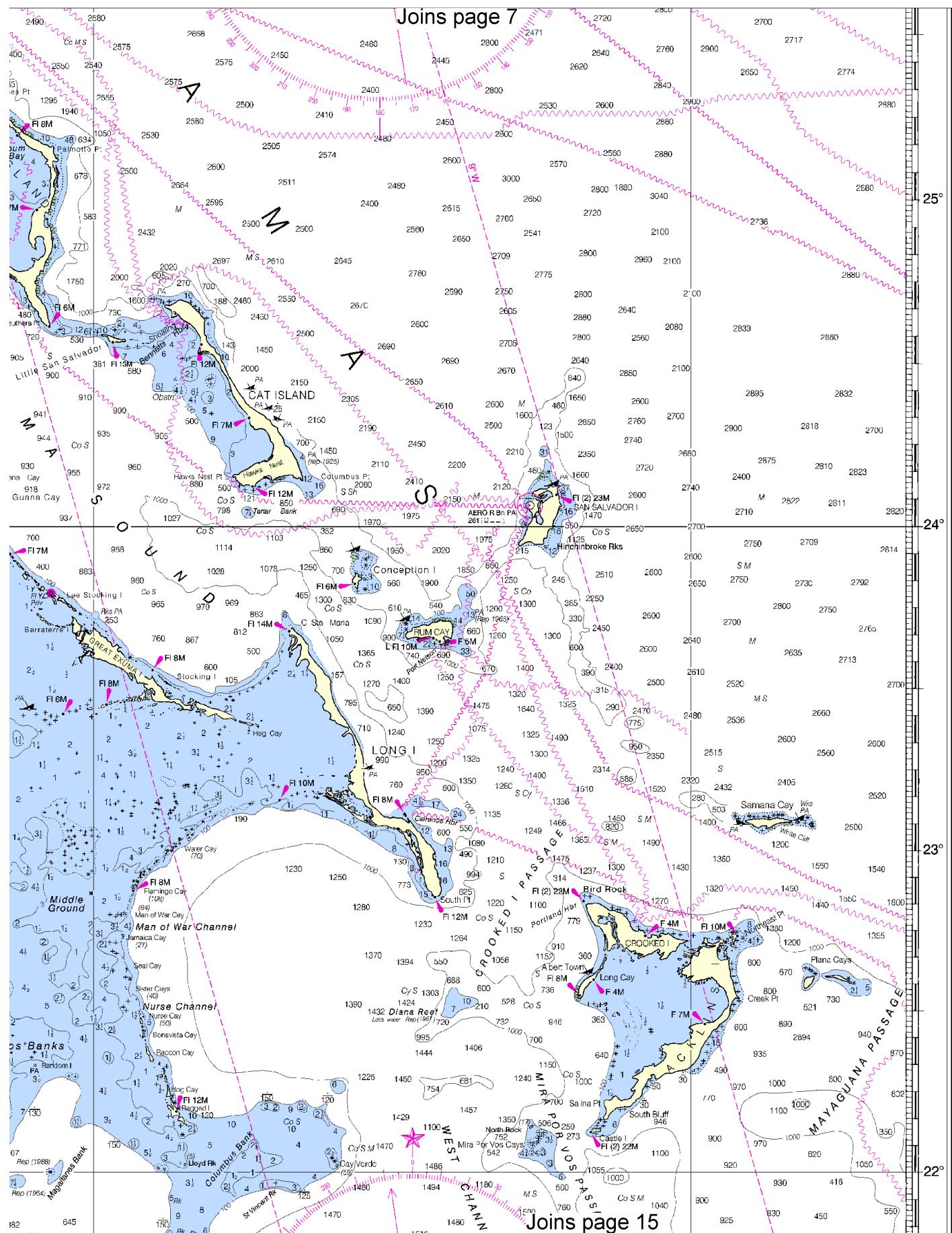
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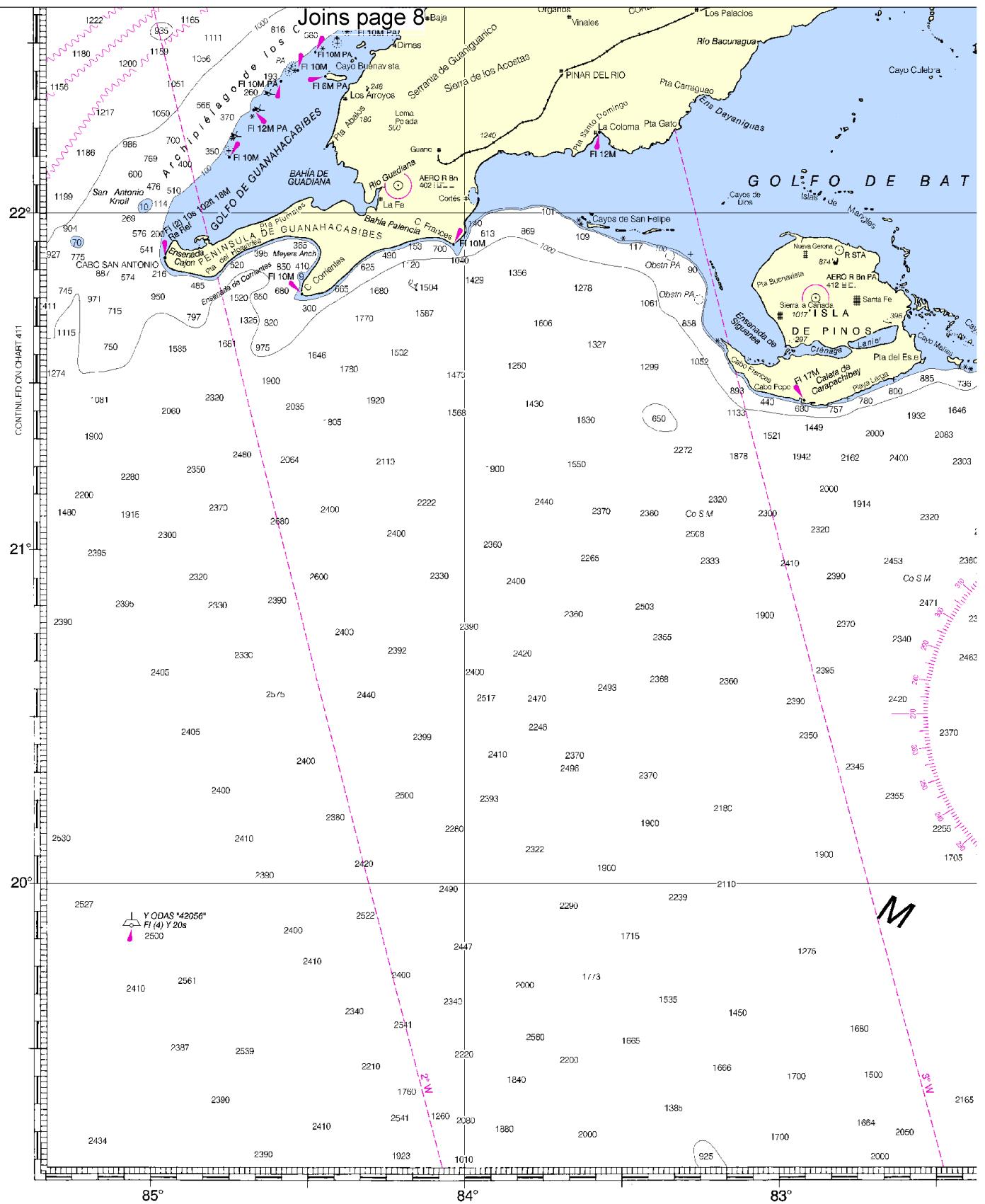
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47th Ed., Feb. / 08 ■ Corrected through NM Feb. 16/08
Corrected through LNM Feb. 12/08

11013
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CAUTION

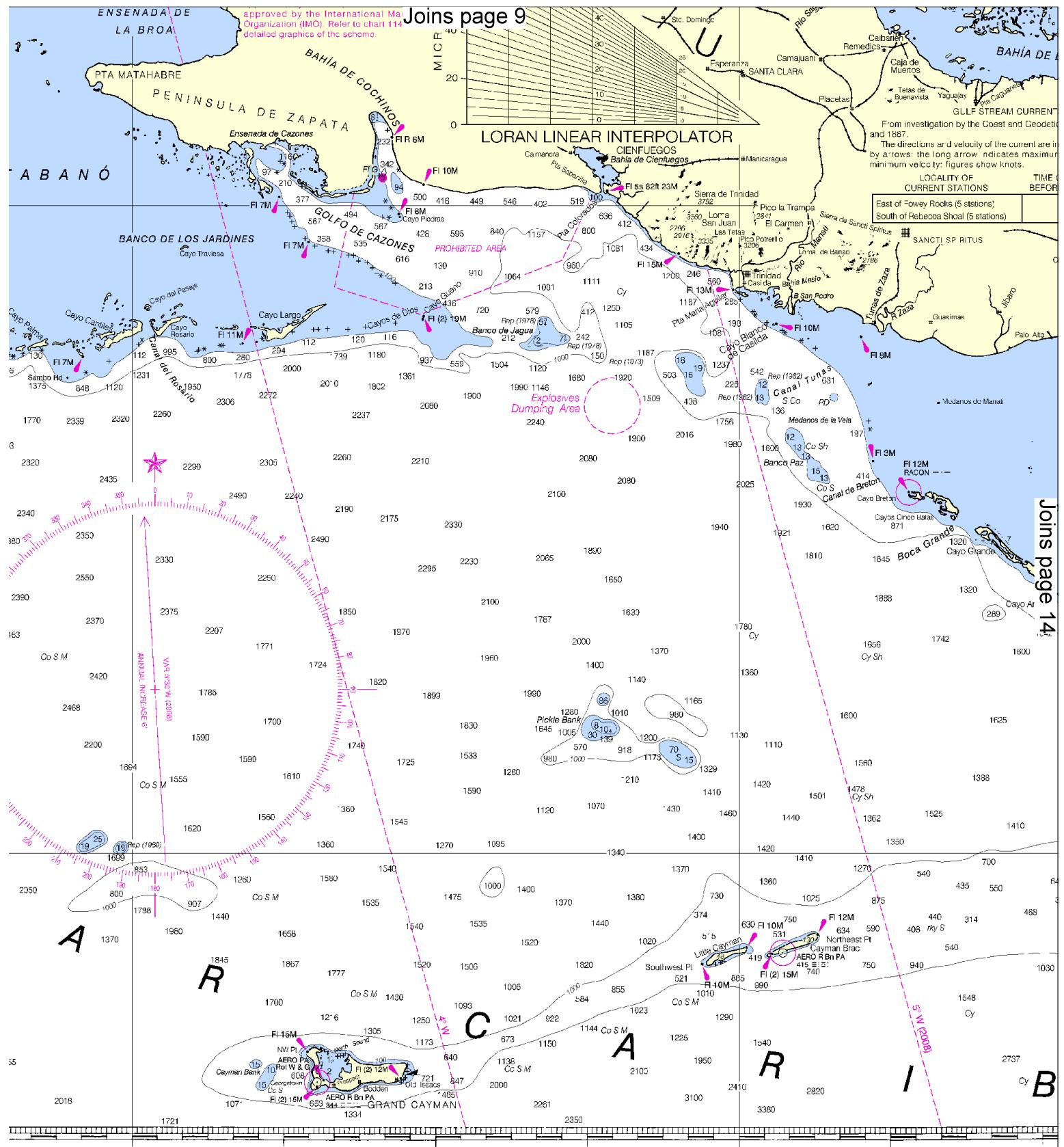
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WARNING
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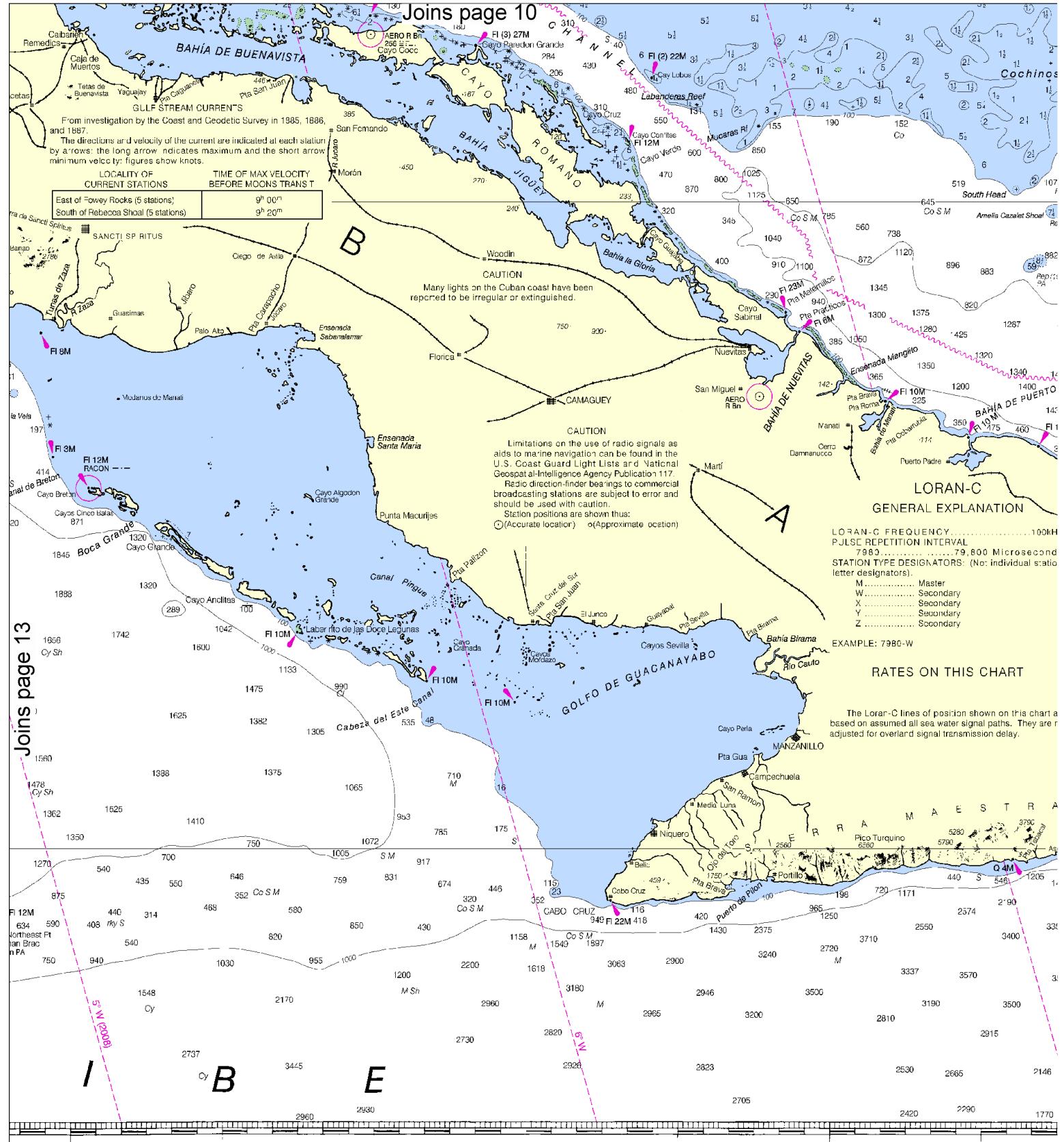
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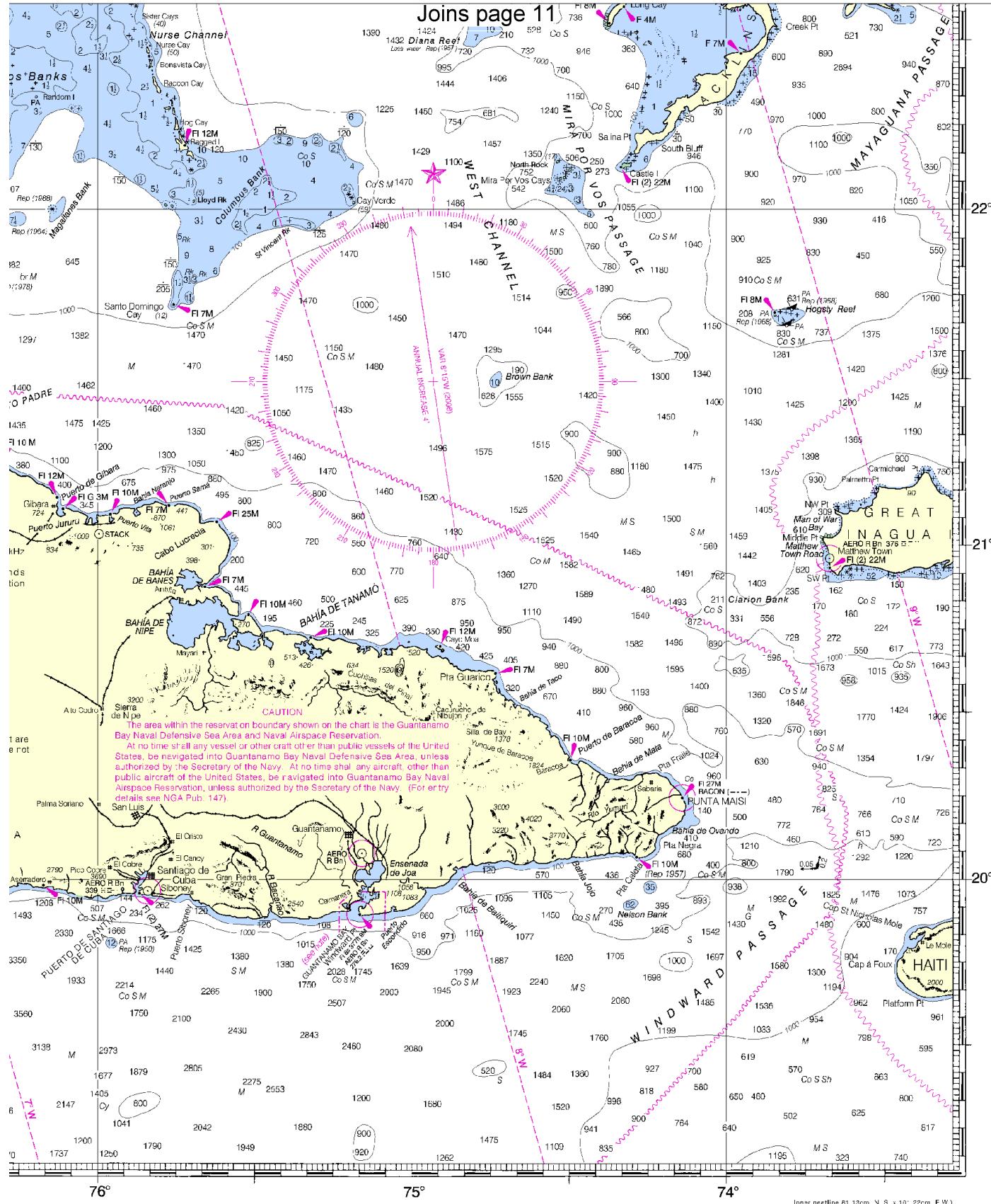




This nautical chart has been designed to promote safe navigation. The National Ocean Service encourages users to submit corrections, additions, or comments for proving this chart to the Chief, Marine Chart Division (N/CS2), National Ocean Service, NOAA, Silver Spring, Maryland 20910-3282.

Published at Washington, D.C.
U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEAN SERVICE
COAST SURVEY





FATHOMS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
FF=T	6	12	18	24	30	36	42	48	54	60	66	72	78	84	90	96	102
MFTFR	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17

Straits of Florida
SOUNDINGS IN FATHOMS - SCALE 1:120,000

11013

LORAN-C OVERPRINTED

15

NSN 766201400096
NGA REFERENCE NO. 11AC011013

EMERGENCY INFORMATION

VHF Marine Radio channels for use on the waterways:

- Channel 6** – Inter-ship safety communications.
- Channel 9** – Communications between boats and ship-to-coast.
- Channel 13** – Navigation purposes at bridges, locks, and harbors.
- Channel 16 – Emergency, distress and safety calls** to Coast Guard and others, and to initiate calls to other vessels. Contact the other vessel, agree to another channel, and then switch.
- Channel 22A** – Calls between the Coast Guard and the public. Severe weather warnings, hazards to navigation and safety warnings are broadcast here.
- Channels 68, 69, 71, 72 & 78A** – Recreational boat channels.

Distress Call Procedures

1. Make sure radio is on.
2. Select Channel 16.
3. Press/Hold the transmit button.
4. Clearly say: "MAYDAY, MAYDAY, MAYDAY."
5. Also give: Vessel Name and/or Description; Position and/or Location; Nature of Emergency; Number of People on Board.
6. Release transmit button.
7. Wait for 10 seconds – If no response Repeat MAYDAY Call.

HAVE ALL PERSONS PUT ON LIFE JACKETS !!

Mobile Phones – Call 911 for water rescue.

- Coast Guard Group Miami** – 305-535-4472
- Coast Guard Group Key West** – 305-292-8856
- Coast Guard Group St. Petersburg** – 727-824-7670
- FL Fish and Wildlife Conservation Comm** – 888-404-3922
- Coast Guard Atlantic Area Cmd** – 757-398-6390

NOAA Weather Radio – 162.400 MHz, 162.425 MHz, 162.450 MHz, 162.475 MHz, 162.500 MHz, 162.525 MHz, 162.550 MHz.

Getting and Giving Help – Signal other boaters using visual distress signals (flares, orange flag, lights, arm signals); whistles; horns; and on your VHF radio. You are required by law to help boaters in trouble. Respond to distress signals, but do not endanger yourself.



NOAA CHARTING PUBLICATIONS

Official NOAA Nautical Charts – NOAA surveys and charts the national and territorial waters of the U.S, including the Great Lakes. We produce over 1,000 traditional nautical charts covering 3.4 million square nautical miles. Carriage of official NOAA charts is mandatory on the commercial ships that carry our commerce. They are used on every Navy and Coast Guard ship, fishing and passenger vessels, and are widely carried by recreational boaters. NOAA charts are available from official chart agents listed at: www.NauticalCharts.NOAA.gov.

Official Print-on-Demand Nautical Charts – These full-scale NOAA charts are updated weekly by NOAA for all Notice to Mariner corrections. They have additional information added in the margin to supplement the chart. Print-on-Demand charts meet all federal chart carriage regulations for charts and updating. Produced under a public/private partnership between NOAA and OceanGrafix, LLC, suppliers of these premium charts are listed at www.OceanGrafix.com.

Official Electronic Navigational Charts (NOAA ENCs®) – ENCs are digital files of each chart's features and their attributes for use in computer-based navigation systems. ENCs comply with standards of the International Hydrographic Organization. ENCs and their updates are available for free from NOAA at www.NauticalCharts.NOAA.gov.

Official Raster Navigational Charts (NOAA RNCs™) – RNCs are geo-referenced digital pictures of NOAA's charts that are suitable for use in computer-based navigation systems. RNCs comply with standards of the International Hydrographic Organization. RNCs and their updates are available for free from NOAA at www.NauticalCharts.NOAA.gov.

Official BookletCharts™ – BookletCharts™ are reduced scale NOAA charts organized in page-sized pieces. The "Home Edition" can be downloaded from NOAA for free and printed. The Internet address is www.NauticalCharts.gov/bookletcharts.

Official PocketCharts™ – PocketCharts™ are for beginning recreational boaters to use for planning and locating, but not for real navigation. Measuring a convenient 13" by 19", they have a 1/3 scale chart on one side, and safety, boating, and educational information on the reverse. They can be purchased at retail outlets and on the Internet.

Official U.S. Coast Pilot® – The Coast Pilots are 9 text volumes containing information important to navigators such as channel descriptions, port facilities, anchorages, bridge and cable clearances, currents, prominent features, weather, dangers, and Federal Regulations. They supplement the charts and are available from NOAA chart agents or may be downloaded for free at www.NauticalCharts.NOAA.gov.

Official On-Line Chart Viewer – All NOAA nautical charts are viewable here on-line using any Internet browser. Each chart is up-to-date with the most recent Notices to Mariners. Use these on-line charts as a ready reference or planning tool. The Internet address is www.NauticalCharts.gov/viewer.

Official Nautical Chart Catalogs – Large format, regional catalogs are available for free from official chart agents. Page size, state catalogs are posted on the Internet and can be printed at home for free. Go to <http://NauticalCharts.NOAA.gov/mcd/ccatalogs.htm>.

Internet Sites: www.NauticalCharts.NOAA.gov, www.NOAA.gov,
www.TidesandCurrents.NOAA.gov, www.NOS.NOAA.gov.